CHAPTER 17

Diodorus on the Chaldeans

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The passage on the Chaldeans (Χαλδαῖοι) in Book 2 of the mid first century BCE historian Diodorus's *Historical Library* (*Bibliotheca Historica*), though it is the most extensive and detailed account in the extant Greco-Roman literature of the Babylonian scholarly milieu in which astronomy and astrology flourished during the second half of the first millennium BCE, tends to receive less attention than comparable passages in Strabo's *Geography* 16.1.6 and Pliny the Elder's *Natural History* 6.121–123. The present article has the modest but, we hope, useful goal of appraising Diodorus's information in the light of our more direct knowledge of the Babylonian astral sciences and their practitioners.

Of the original forty books (βιβλία) of the *Historical Library*—fewer than half of which survive—Books 1 through 6 ostensibly covered history up to the Trojan War, with 1–3 devoted to the major "barbarian" peoples, and 4–6 to the Greeks. Following Book 1, which, after preliminaries, is wholly about Egypt, Diodorus turns in Book 2 to Asia, treated nation by nation: the Assyrians, Chaldeans, Medes, Indians, Scythians, Amazons, Hyperboreans, Arabs, and the inhabitants of an island in the remote southern Ocean as described by one Iambulus. The order is partly determined by chronology but chiefly by geography, proceeding from the nearer peoples to the more remote and in some cases positively fanciful.[1]

What and how much Diodorus has to say about these peoples varies considerably. The first twenty-eight of the sixty sections into which Book 2 is subdivided in modern editions present a narrative history of Assyria, the great part of which concerns its first king, Ninus, and his queen Semiramis, followed by a brief account of their son Ninyas and a precipitate rush through thirty generations to the reign of Sardanapalus, the last king of Assyria. The comparatively brief passage (2.32–34) on the Medes is also narrative, and there are a few narrative passages elsewhere. On the other hand, the predominant mode in Book 2 for peoples other than the Assyrians and Medes is ethnographic and descriptive geography, in relation to which the nominal chronological limit of the Trojan War is generally disregarded. But even the narrative history does not respect this bound (which Diodorus sets at 779 years before the end of the

1 Iambulus's work may in fact have been a novel that Diodorus mistook for an authentic narrative of travel.

Peloponnesian War, i.e., 1184 BCE), since the rather distorted account of the fall of the Assyrian Empire to the Medes refers to events of the late seventh century BCE. In other words, Diodorus readily conflates non-Hellenic with pre-Hellenic.

Diodorus is generally regarded, with reason, as a largely derivative historian who depended, for long stretches of his work, on a few principal authors—sometimes acknowledged, sometimes not—supplemented by occasional material from other sources and intermittent personal interventions, especially in the non-narrative parts.[2] His Assyrian and Median narratives were evidently based in great part on the *Persika* of Ctesias (ca. 400 BCE), who is cited by name eleven times. Though lodged between the Assyrians and the Medes, however, Diodorus's account of the Chaldeans (2.29–31), which is wholly ethnographic, probably owes little or nothing to Ctesias, and may in fact be a personal and eclectic amalgam assembled by Diodorus from multiple sources.[3] The transitional passages at its beginning and, especially, at its end make its character as a digression from the continuity of the Assyrian-Median historical narrative obvious.

A peculiarity of the Chaldean passage, in comparison with other ethnographic passages in Book 2, is that it is not about a people in the broad sense but about a specific scholarly community in Babylon; otherwise Babylonia receives no separate treatment in the *Historical Library*, but is subsumed into the Assyrian narrative and into narrative passages in the later books. Diodorus perhaps intended the passage to provide background to anecdotes elsewhere in his work in which Chaldeans were prominent. These include the prophecy of the Chaldeans to Alexander the Great that he would die if he entered Babylon (17.112), and their foretelling to Antigonus that Seleucus would become ruler of Asia and that Antigonus would die in battle against him (19.55, repeated 21.1); both these incidents are in fact glancingly alluded to in 2.31. But already in 2.24 Diodorus had introduced Belesys, general of the Babylonians and confidant of Arbaces, the general of the Medes, as "the most noteworthy of the priests whom the Babylonians call Chaldeans," an expert in astral science (ἀστρολογία) and divination (μαντική), and this might have been the immediate provocation for introducing a digression on the Chaldeans just a few paragraphs later.

2 For a sustained plea for seeing Diodorus's work as reflecting some degree of authorial control beyond mechanical digesting of sources, see Sacks 1990.

3 In this we agree with Boncquet 1987: 170–173, who also provides a useful review of previous (and generally inconclusive) speculations about Diodorus's source or sources for the Chaldean passage. However, we are inclined to be more sceptical than Boncquet of the hypothesis that the imprint of the Stoic Posidonius can be detected in Diodorus.

Curiously, in Book 2 he makes no reference to the fact that in his treatment of Egypt he has twice (1.28 and 1.81) written that the Egyptians claimed to have taught the Chaldeans their astral wisdom; nor do those passages give any hint that a fuller description of the Chaldeans is to come. Nevertheless Diodorus's presentation of the Chaldeans in 2.29–31 appears to combine genuine information about Babylonian scholars and scholarship with less reliable or positively false information that seems to reflect a source that ascribed aspects of Egyptian or Greco-Egyptian astral science to the Babylonians.

For the text of 2.29–31 we have consulted the critical editions of Vogel (1888) and Eck (2003), omitting *apparatus criticus* but alerting the reader to the relatively few major textual uncertainties in our notes. We have tended to present a comparatively conservative text, retaining some problematic and controversial readings from the manuscript tradition and reserving discussion of possible corrections for the notes. The notes are keyed to the text and translation by chapter and section number.

Text and Translation

(29) [1]ἡμῖν δ᾽ οὐκ ἀνάρμοστον εἶναι δοκεῖ περὶ τῶν ἐν Βαβυλῶνι καλουμένων Χαλδαίων καὶ τῆς ἀρχαιότητος αὐτῶν βραχέα διελθεῖν, ἵνα μηδὲν παραλείπωμεν τῶν ἀξίων μνήμης. [2]Χαλδαῖοι τοίνυν, τῶν ἀρχαιοτάτων ὄντες Βαβυλωνίων, τῇ μὲν διαιρέσει τῆς πολιτείας παραπλησίαν ἔχουσι τάξιν τοῖς κατ᾽ Αἴγυπτον ἱερεῦσι· πρὸς γὰρ τῇ θεραπείᾳ τῶν θεῶν τεταγμένοι πάντα τὸν τοῦ ζῆν χρόνον φιλοσοφοῦσι, μεγίστην δόξαν ἔχοντες ἐν ἀστρολογίᾳ. ἀντέχονται δ᾽ ἐπὶ πολὺ καὶ μαντικῆς, ποιούμενοι προρρήσεις περὶ τῶν μελλόντων, καὶ τῶν μὲν καθαρμοῖς, τῶν δὲ θυσίαις, τῶν δ᾽ ἄλλαις τισὶν ἐπῳδαῖς ἀποτροπὰς κακῶν καὶ τελειώσεις ἀγαθῶν πειρῶνται πορίζειν. [3]ἐμπειρίαν δ᾽ ἔχουσι καὶ τῆς διὰ τῶν οἰωνῶν μαντικῆς, ἐνυπνίων τε καὶ τεράτων ἐξηγήσεις ἀποφαίνονται. οὐκ ἀσόφως δὲ ποιοῦνται καὶ τὰ περὶ τὴν ἱεροσκοπίαν,

(29) [1]It appears to us not unfitting to discourse briefly about the people in Babylon called Chaldeans and their antiquity, so that we leave out none of the things worthy of mention. [2]Well then, the Chaldeans, being among the most ancient Babylonians, have a rank in the subdivision of the state comparable to the priests in Egypt; for having been assigned to the cultivation of the gods, they practice philosophy for all the time of their life, having a very great repute in astral science (*astrologia*). They also adhere to a great extent to divination (*mantike*), making forecasts about the things that are going to happen, and they undertake to supply turnings-away (*apotropai*) of evil things and fulfilments of good things, some (of the evils and goods) by purifications, some by sacrifices,

ἄκρως ἐπιτυγχάνειν νομίζοντες. τὴν δὲ τούτων μάθησιν ἁπάντων οὐχ ὁμοίαν ποιοῦνται τοῖς τὰ τοιαῦτ᾽ ἐπιτηδεύουσι τῶν Ἑλλήνων.

some by various other incantations (*epodai*). [3]They have experience in divination by birds, and pronounce interpretations of dreams and monstrosities. And they also perform matters of extispicy in a manner not lacking in wisdom, considering it to be supremely successful. The education (*mathesis*) that they carry out for all these things is not like those of the Greeks who practice such things.

[4]παρὰ μὲν γὰρ τοῖς Χαλδαίοις ἐκ γένους ἡ τούτων φιλοσοφία παραδέδοται, καὶ παῖς παρὰ πατρὸς διαδέχεται, τῶν ἄλλων λειτουργιῶν πασῶν ἀπολελυμένος. διὸ καὶ γονεῖς ἔχοντες διδασκάλους, ἅμα μὲν ἀφθόνως ἅπαντα μανθάνουσιν, ἅμα δὲ τοῖς παραγγελλομένοις προσέχουσι πιστεύοντες βεβαιότερον. ἔπειτ᾽ εὐθὺς ἐκ παίδων συντρεφόμενοι τοῖς μαθήμασι, μεγάλην ἕξιν περιποιοῦνται διά τε τὸ τῆς ἡλικίας εὐδίδακτον καὶ διὰ τὸ πλῆθος τοῦ προσκαρτερουμένου χρόνου. [5]παρὰ δὲ τοῖς Ἕλλησιν ὁ πολὺς ἀπαράσκευος προσιὼν ὀψέ ποτε τῆς φιλοσοφίας ἅπτεται, καὶ μέχρι τινὸς φιλοπονήσας, ἀπῆλθε περισπασθεὶς ὑπὸ βιωτικῆς χρείας. ὀλίγοι δὲ παντελῶς ἐπὶ φιλοσοφίαν ἀποδύντες ἐργολαβίας ἕνεκεν παραμένουσιν ἐν τῷ μαθήματι, καινοτομοῦντες ἀεὶ περὶ τῶν μεγίστων δογμάτων καὶ τοῖς πρὸ αὐτῶν οὐκ ἀκολουθοῦντες.

[4]For among the Chaldeans the philosophy of these things is transmitted by descent (*ek genous*), and son succeeds father, having been freed from all other duties (*leitourgiai*). Hence having teachers who are also parents, at the same time they learn all things ungrudgingly, and they obey the instructions, because they trust more confidently. And moreover being nourished in mathematics/learnings (*mathemata*) straightway from childhood, they profess a great competence because of the ease of learning belonging to that age, and because of the quantity of time spent in diligent employment. [5]Among the Greeks, on the other hand, many is the unprepared person who takes up philosophy late in the day, and after working diligently up to a point, he gives up, being tugged away by the needs of life. A few, however, stripping themselves entirely for philosophy for the sake of gain, remain in the learned pursuit (*mathema*), always coming up with newfangled ideas about the most important teachings and not following their predecessors.

[6]τοιγαροῦν οἱ μὲν βάρβαροι διαμένοντες ἐπὶ τῶν αὐτῶν ἀεὶ βεβαίως ἕκαστα λαμβάνουσιν, οἱ δ' Ἕλληνες τοῦ κατὰ τὴν ἐργολαβίαν κέρδους στοχαζόμενοι καινὰς αἱρέσεις κτίζουσι· καὶ περὶ τῶν μεγίστων θεωρημάτων ἀλλήλοις ἀντιδοξοῦντες διχονοεῖν ποιοῦσι τοὺς μανθάνοντας καὶ τὰς ψυχὰς αὐτῶν πλανᾶσθαι, τὸν πάντα βίον ἐν αἰώρᾳ γενομένας καὶ μηδὲν ὅλως πιστεῦσαι δυναμένας βεβαίως. τὰς γοῦν ἐπιφανεστάτας αἱρέσεις τῶν φιλοσόφων εἴ τις ἀκριβῶς ἐξετάζοι, πλεῖστον ὅσον εὑρήσει διαφερούσας ἀλλήλων καὶ περὶ τῶν μεγίστων δοξῶν ἐναντία δοξαζούσας.

[6]For that very reason the barbarians, because they always stick to the same things, take hold of all things securely, whereas the Greeks, because they make a random shot for the reward of lucre, found novel sects; and by holding contrary opinions to one another about the most important objects of contemplation (*theoremata*), they cause the students to doubt (*dichonoein*) and (cause) their souls to wander, seesawing (*en aiora genomenas*) their whole lives, and able to trust nothing whatsoever securely. At any rate, if one were to make an accurate scrutiny of the most conspicuous sects of the philosophers, one would find them differing ever so much from each other and entertaining opposite positions on the most important opinions.

(30) [1]οἱ δ'οὖν Χαλδαῖοι τὴν μὲν τοῦ κόσμου φύσιν ἀίδιόν φασιν εἶναι καὶ μήτε ἐξ ἀρχῆς γένεσιν ἐσχηκέναι μήθ' ὕστερον φθορὰν ἐπιδέξεσθαι· τήν τε τῶν ὅλων τάξιν τε καὶ διακόσμησιν θείᾳ τινὶ προνοίᾳ γεγονέναι, καὶ νῦν ἕκαστα τῶν ἐν οὐρανῷ γενομένων οὐχ ὡς ἔτυχεν οὐδ' αὐτομάτως, ἀλλ' ὡρισμένῃ τινὶ καὶ βεβαίως κεκυρωμένῃ θεῶν κρίσει συντελεῖσθαι. [2]τῶν δ' ἄστρων πολυχρονίους παρατηρήσεις πεποιημένοι, καὶ τὰς ἑκάστου κινήσεις τε καὶ δυνάμεις ἀκριβέστατα πάντων ἀνθρώπων ἐπεγνωκότες, πολλὰ τῶν μελλόντων συμβαίνειν προλέγουσι τοῖς ἀνθρώποις. [3]μεγίστην τέ φασιν εἶναι θεωρίαν καὶ δύναμιν περὶ τοὺς πέντε ἀστέρας τοὺς πλάνητας καλουμένους, οὓς ἐκεῖνοι κοινῇ μὲν ἑρμηνεῖς

(30) [1]The Chaldeans say that the nature of the cosmos is eternal and neither had a coming-to-be from the beginning nor is going to obtain a passing-away later; that the arrangement and order of everything took place through a certain divine providence, and that now each of the things happening in the heavens is brought about not at random or spontaneously but by some defined and securely ratified (*kekyromene*) judgment of the gods. [2]Having made observations of the stars over many years, and found out the motions and powers of each of them most accurately of all people, they foretell to people many of the things that are going to happen. [3]They say that the

ὀνομάζουσιν· ἰδιᾷ δὲ τὸν ὑπὸ τῶν Ἑλλήνων Κρόνον ὀνομαζόμενον, ἐπιφανέστατον δὲ καὶ πλεῖστα καὶ μέγιστα προσημαίνοντα, καλοῦσιν Ἡλίου, τοὺς δ᾽ ἄλλους τέτταρας ὁμοίως τοῖς παρ᾽ ἡμῖν ἀστρολόγοις ὀνομάζουσιν, Ἄρεως, Ἀφροδίτης, Ἑρμοῦ, Διός.

greatest contemplation (*theoria*) and power pertains to the five stars called "wanderers" (*planetes*), which they collectively name "interpreters"; particularly, the one named Kronos by the Greeks, which is most conspicuous (*epifanestaton*) and signifying (*prosemainon*) the most and greatest things, they call "of the Sun," while they name the other four in the same way as the astronomers (*astrologoi*) among us, (as the stars) "of Ares," "of Aphrodite," "of Hermes," "of Zeus."

[4]διὰ τοῦτο δ᾽ αὐτοὺς ἑρμηνεῖς καλοῦσιν, ὅτι, τῶν ἄλλων ἀστέρων ἀπλανῶν ὄντων καὶ τεταγμένῃ πορείᾳ μίαν περιφορὰν ἐχόντων, οὗτοι μόνοι πορείαν ἰδίαν ποιούμενοι τὰ μέλλοντα γίνεσθαι δεικνύουσιν, ἑρμηνεύοντες τοῖς ἀνθρώποις τὴν τῶν θεῶν ἔννοιαν. τὰ μὲν γὰρ διὰ τῆς ἀνατολῆς, τὰ δὲ διὰ τῆς δύσεως, τινὰ δὲ διὰ τῆς χρόας προσημαίνειν φασὶν αὐτοὺς τοῖς προσέχειν ἀκριβῶς βουληθεῖσιν. [5]ποτὲ μὲν γὰρ πνευμάτων μεγέθη δηλοῦν αὐτούς, ποτὲ δὲ ὄμβρων ἢ καυμάτων ὑπερβολάς, ἔστι δὲ ὅτε κομητῶν ἀστέρων ἐπιτολάς, ἔτι δὲ ἡλίου τε καὶ σελήνης ἐκλείψεις, καὶ σεισμούς, καὶ τὸ σύνολον πάσας τὰς ἐκ τοῦ περιέχοντος γεννωμένας περιστάσεις ὠφελίμους τε καὶ βλαβερὰς οὐ μόνον ἔθνεσιν ἢ τόποις, ἀλλὰ καὶ βασιλεῦσι καὶ τοῖς τυχοῦσιν ἰδιώταις. [6]ὑπὸ δὲ τὴν τούτων φορὰν λέγουσι τετάχθαι τριάκοντα ἀστέρας, οὓς προσαγορεύουσι βουλαίους θεούς· τούτων δὲ τοὺς μὲν ἡμίσεις τοὺς ὑπὲρ γῆν τόπους ἐφορᾶν, τοὺς δ᾽ ἡμίσεις ⟨τοὺς⟩ ὑπὸ τὴν γῆν, τὰ κατ᾽ ἀνθρώπους ἐπισκοποῦντας ἅμα καὶ τὰ κατὰ τὸν

[4]They call them interpreters, because, whereas the other stars are nonwandering and having a single revolution with an orderly (*tetagmene*) journey, these alone, making a journey each of its own, indicate the things that are going to happen, interpreting for people the intention of the gods. They say that they signify, to those who have chosen to pay accurate attention, some things by their rising, some by their setting, and some by their color. [5]For (they say that) they sometimes show the magnitudes of the winds, sometimes the excesses of rainstorms or heat waves, and sometimes the risings of comets, and also eclipses of Sun and Moon, and earthquakes, and in a word all the circumstances arising from the environment, being beneficial and harmful not only to peoples and places but also to kings and random individuals. [6]They say that below the motion of these are placed thirty stars, which they designate as council gods; (they say that) half of

οὐρανὸν συμβαίνοντα. διὰ δ' ἡμερῶν δέκα πέμπεσθαι τῶν μὲν ἄνω πρὸς τοὺς κάτω καθάπερ ἄγγελον ἕνα τῶν ἀστέρων, τῶν δ' ὑπὸ γῆν πρὸς τοὺς ἄνω πάλιν ὁμοίως ἕνα, καὶ ταύτην ἔχειν οὐτοὺς φορὰν ὡρισμένην καὶ περιόδῳ κεκυρωμένην αἰωνίῳ.

these oversee the places above the Earth, and half (oversee the places) below the Earth, watching over both people and the things occurring in the heavens; (they say that) at intervals of ten days, one of the stars of those above is sent to the ones below like a messenger, and again similarly one of those below the Earth to the ones above, and (that) they have this motion defined and ratified for an eternal period.

[7]τῶν θεῶν δὲ τούτων κυρίους εἶναι φασι δώδεκα τὸν ἀριθμόν, ὧν ἑκάστῳ μῆνα καὶ τῶν δώδεκα λεγομένων ζῳδίων ἕν προσνέμουσι. διὰ δὲ τούτων φασι ποιεῖσθαι τὴν πορείαν τόν τε ἥλιον καὶ τὴν σελήνην καὶ πέντε τοὺς πλάνητας ἀστέρας, τοῦ μὲν ἡλίου τὸν ἴδιον κύκλον ἐν ἐνιαυτῷ τελοῦντος, τῆς δὲ σελήνης ἐν μηνὶ τὴν ἰδίαν περίοδον διαπορευομένης.

[7]They say that there are lords of these gods, twelve in number, to each of which they allot one month and one of the twelve so-called zodiacal signs (*zodia*). They say that the Sun and the Moon and the five wandering stars make their journey through these, with the Sun completing its own circle in a year, and the Moon making the complete traversal of its own circuit (*periodos*) in a month.

(31) [1]τῶν δὲ πλανήτων ἕκαστον ἴδιον ἔχειν δρόμον καὶ διηλλαγμένως καὶ ποικίλως χρῆσθαι τοῖς τάχεσι καὶ τῇ τῶν χρόνων διαιρέσει. πλεῖστα δὲ πρὸς τὰς γενέσεις τῶν ἀνθρώπων συμβάλλεσθαι τούτους τοὺς ἀστέρας ἀγαθά τε καὶ κακά· διὰ δὲ τῆς τούτων φύσεώς τε καὶ θεωρίας μάλιστα γινώσκειν τὰ συμβαίνοντα τοῖς ἀνθρώποις. [2]πεποιῆσθαι δέ φασι προρρήσεις ἄλλοις τε βασιλεῦσιν οὐκ ὀλίγοις καὶ τῷ καταπολεμήσαντι Δαρεῖον Ἀλεξάνδρῳ καὶ τοῖς μετὰ ταῦτα βασιλεύσασιν Ἀντιγόνῳ τε καὶ Σελεύκῳ τῷ Νικάτορι, ἐν ἅπασι δὲ τοῖς ῥηθεῖσιν εὐστοχηκέναι δοκοῦσιν· ὑπὲρ ὧν ἡμεῖς τὰ κατὰ μέρος ἐν οἰκειοτέροις

(31) [1](They say that) each of the planets has its own course and is subject to variations and complexities in its speeds and its division of the time intervals. (They say that) these stars contribute numerous goods and evils for the nativities of people; (and they say that) by means of the nature and sight of them, above all, they (*scil.* the Chaldeans) know the things that happen to people. [2]They say that they have made forecasts to not a few kings, and in particular to Darius when he was about to make war against Alexander, and to Antigonus and Seleucus Nicator

ἀναγράψομεν καιροῖς. [3]προλέγουσι δὲ καὶ τοῖς ἰδιώταις τὰ μέλλοντα συμβαίνειν οὕτως εὐστόχως ὥστε τοὺς πειραθέντας θαυμάζειν τὸ γενόμενον καὶ μεῖζον ἢ κατ᾽ ἄνθρωπον ἡγεῖσθαι.

who reigned after these things, and they appeared to hit the mark in all their utterances; we will write the particulars about these things on more appropriate occasions. [3]They foretell also to private persons the things that are going to happen, in such a well-aimed manner that those who have experienced it are astonished at the event and believe that it is superhuman.

[4]μετὰ δὲ τὸν ζῳδιακὸν κύκλον εἴκοσι καὶ τέτταρας ἀφορίζουσιν ἀστέρας, ὧν τοὺς μὲν ἡμίσεις ἐν τοῖς βορείοις μέρεσι, τοὺς δ᾽ ἡμίσεις ἐν τοῖς νοτίοις τετάχθαι φασί, καὶ τούτων τοὺς μὲν ὁρωμένους τῶν ζώντων εἶναι καταριθμοῦσι, τοὺς δ᾽ ἀφανεῖς τοῖς τετελευτηκόσι προσωρίσθαι νομίζουσιν, οὓς δικαστὰς τῶν ὅλων προσαγορεύουσιν. [5]ὑπὸ πάντα δὲ τὰ προειρημένα τὴν σελήνην φέρεσθαι λέγουσιν, ἔγγιστα μὲν τῆς γῆς οὖσαν διὰ τὴν βαρύτητα, διαπορευομένην δ᾽ ἐν ἐλαχίστῳ χρόνῳ τὸν ἑαυτῆς δρόμον, οὐ διὰ τὴν ὀξύτητα τῆς φορᾶς, ἀλλὰ διὰ τὴν βραχύτητα τοῦ κύκλου. [6]ὅτι δὲ τὸ φῶς ἀλλότριον ἔχει καὶ διότι τὰς ἐκλείψεις ποιεῖται διὰ τὸ σκίασμα τῆς γῆς παραπλήσια λέγουσι τοῖς Ἕλλησιν. περὶ δὲ τῆς κατὰ τὸν ἥλιον ἐκλείψεως ἀσθενεστάτας ἀποδείξεις φέροντες οὐ τολμῶσι προλέγειν οὐδ᾽ ἀκριβῶς ὑπὲρ ταύτης περιγράφειν τοὺς χρόνους. [7]περὶ δὲ τῆς γῆς ἰδιωτάτας ἀποφάσεις ποιοῦνται, λέγοντες ὑπάρχειν αὐτὴν σκαφοειδῆ καὶ κοίλην, καὶ πολλὰς καὶ πιθανὰς ἀποδείξεις εὐποροῦσι περί τε ταύτης καὶ περὶ τῶν ἄλλων τῶν κατὰ τὸν κόσμον· ὑπὲρ ὧν τὰ κατὰ μέρος διεξιέναι τῆς ὑποκειμένης ἱστορίας ἀλλότριον

[4]After the zodiacal circle, they mark off twenty-four stars, half of which, they say, are situated in the northern regions, half in the southern, and they count those of them that are seen as belonging to the living, but they consider the invisible ones to be determined for the dead, and they call these judges of all. [5]They say that the moon travels below all the aforesaid, being closest to the Earth because of its weight, and making the complete traversal of its own course in the least time, not because of the swiftness of its motion but because of the brevity of the circle. [6]They say similar things to the Greeks to the effect that its light is not its own, and that it makes eclipses through the shadowing of the earth. They adduce very weak demonstrations concerning the eclipse with respect to the Sun and do not dare to forecast or determine the times for this (eclipse) accurately. [7]They make very peculiar pronouncements about the Earth, saying that it is bowl-shaped and concave, and they abound in many plausible demonstrations about this

εἶναι νομίζομεν. [8]τοῦτο μέντοι γε διαβεβαιώσαιτ᾽ ἄν τις προσηκόντως, ὅτι Χαλδαῖοι μεγίστην ἔξιν ἐν ἀστρολογίᾳ τῶν ἁπάντων ἀνθρώπων ἔχουσι καὶ διότι πλείστην ἐπιμέλειαν ἐποιήσαντο ταύτης τῆς θεωρίας.

and about the other matters with respect to the cosmos; but we consider it to be outside the scope of the present history to go into each detail about these things. [8]But one would be assured of this, that the Chaldeans have the greatest competence in astronomy/astrology of all people, and that they took the greatest care of this science.

[9]περὶ δὲ τοῦ πλήθους τῶν ἐτῶν ἐν οἷς φασι τὴν θεωρίαν τῶν κατὰ τὸν κόσμον πεποιῆσθαι τὸ σύστημα τῶν Χαλδαίων, οὐκ ἄν τις ῥᾳδίως πιστεύσειεν· ἐτῶν γὰρ ἑπτὰ καὶ τετταράκοντα μυριάδας καὶ τρεῖς ἐπὶ ταύταις χιλιάδας εἰς τὴν Ἀλεξάνδρου διάβασιν γεγονέναι καταριθμοῦσιν, ἀφ᾽ ὅτου τὸ παλαιὸν ἤρξαντο τῶν ἄστρων τὰς παρατηρήσεις ποιεῖσθαι. [10]καὶ περὶ μὲν Χαλδαίων ἀρκεσθησόμεθα τοῖς ῥηθεῖσιν, ἵνα μὴ μακρότερον ἀποπλανώμεθα τῆς οἰκείας ἱστορίας· περὶ δὲ τῆς Ἀσσυρίων βασιλείας ὡς ὑπὸ Μήδων κατελύθη προειρηκότες ἐπάνιμεν ὅθεν ἐξέβημεν.

[9]Concerning the number of years in which, they say, the college (*systema*) of the Chaldeans has made the science of matters concerning the cosmos, one would not easily believe; for they count 473,000 years to the crossing over of Alexander, from when they began of old the observations of the stars. [10]Let us be satisfied with what has been said about the Chaldeans, so that we should not any longer digress from the proper history; having previously spoken about the kingdom of the Assyrians and how it was destroyed by the Medes, we will proceed next from the place where we digressed.

Notes

29.2 *rank … comparable to the priests in Egypt*. In 1.73 Diodorus writes that the priests in Egypt hold one of the three parts of Egypt, are exempt from taxes, and come second only to the king in reputation and resources.
29.2 *philosophy*. Similarly Strabo, 16.1.6, speaks of the Chaldeans as philosophers.
29.2. *astral science*. The word *astrologia* had essentially the same scope as *astronomia*, originally covering pursuits that we would characterize as astronomy, but also applicable to astrology from the time of astrology's diffusion in the

Greco-Roman world in the late Hellenistic period.[4] For Diodorus, it definitely signifies astronomy in some passages, for example 12.36 à propos of Meton of Athens, and this is likely to be true in general. In the present context astrology seems to be subsumed into divination.

29.2–3. *divination*. The practice of divination from a wide variety of natural and invoked phenomena is well attested in Babylonia. The most frequent form of divination was through the interpretation of observed events by consulting collections of conditional omen statements. Many texts contain collections of particular types of omens. These texts were usually arranged into multi-tablet series devoted to a particular type of divination. For example, the series *Enūma Anu Enlil* contains celestial omens (i.e. omens from the appearance and behavior of the moon, sun, stars, planets and certain metrological phenomena), *Šumma ālu* contains terrestrial omens (i.e. omens from daily life in a city and the behavior of animals), *Šumma izbu* contains omens from monstrous births, and the series *bārûtu* contains omens from the liver of a sheep (i.e. extispicy). All of the divinatory practices mentioned by Diodorus—by the behaviours of birds, by the interpretation of dreams, by the birth of malformed animals, and by extispicy—are known to be Babylonian practices. For the Babylonians, divination was a process by which the gods sent messages to mankind. If these messages were unfavorable, for example predicting the death of the king, the failure of crops, defeat in a battle, or general hardship in the lands, rituals known as *namburbû*—literally "(ritual for) undoing of it"[5]— could be performed to make the ill-effect pass by. These rituals customarily involved the purification of the affected individual, ritual actions such as the presentation of food or other offerings to the gods, destruction of the portentous object (if appropriate), the performance of incantations, and, occasionally, sacrifice.[6]

29.3–4. *education*. This passage is a fairly accurate reflection of the training of the scribes who wrote scholarly texts in Babylonia during the last few centuries BCE (and possibly earlier). From Hellenistic Babylon we have a document from the Esagila temple which states that the son of a scholar has shown himself capable of making astronomical observations and carrying out the other duties of an astronomer, and will therefore take over the role held at an earlier time by his father.[7] From Uruk we have considerable evidence from colophons on astronomical and other scholarly tablets that there was a small network of

4 Hübner 1990.

5 Caplice 1974: 8.

6 Caplice 1974: 9–13.

7 Rochberg 2000.

scribal families in which sons followed fathers into the scholarly professions. The sons were trained both within their family and in other families in something like a reciprocal arrangement for apprentices.[8]

29.5–6. *Among the Greeks*. Diodorus's disparagement of Greek philosophical education as inferior to that of the Chaldeans and other non-Greeks ("barbarians") is hard to parallel, though it accords with other passages (9.9, 10.7) in which he is severely critical of philosophers as hypocritical and lazy.[9]

29.5. *many is the unprepared person … late in the day*. A variant manuscript reading would translate as "the man who approaches many (teachers? or subjects?) without preparation takes up philosophy late in the day."

29.6. *they cause the students to doubt*. One may compare Galen, *De libris propriis* 39–41, describing the intellectual crisis he experienced after studying under a succession of philosophers of various sects and contradictory teachings, a crisis that he resolved by turning to mathematics as a model of reasoning.

29.6. *seesawing*. αἰώρᾳ (literally, a swing or a swinging motion) is Henri Étienne's persuasive emendation (1559) of text garbled throughout the manuscript tradition.

30.1. *the nature of the cosmos is eternal*. Diodorus's remark that the cosmos is "eternal" and that its "arrangement and order of everything happened through a certain divine providence" seem to reflect the story of the creation of the universe found in the Babylonian creation epic *Enūma Eliš*, in which the Earth and the celestial realms were created by Marduk from the body of Tiāmat. Marduk creates the stars, the Moon and the Sun to regulate the months and the years. In doing so, Marduk gives the celestial bodies and order and regularity:

> He fashioned heavenly stations for the great gods, and set up constellations, the patterns of the stars. He appointed the year, marked off divisions, and set up three stars each for the twelve months. After he had organized the year, he established the heavenly station of Nēberu to fix the stars' intervals. That none should transgress or be slothful he fixed the heavenly stations of Enlil and Ea with it. Gates he opened on both sides, and put strong bolts at the left and the right. He placed the heights (of heaven) in her (Tiāmat's) belly, he created Nannar, entrusting to him the night. He appointed his as the jewel of the night to fix the dates, and month by month without ceasing he elevated him with a crown.[10]

8 Ossendrijver 2011a, 2011b; forthcoming.

9 Sacks 1990: 189.

10 *Enūma Eliš* V 1–14, translated by Lambert 2013: 99.

30.1 *is going to obtain* (ἐπιδέξεσθαι). An alternate manuscript reading would translate as "has obtained" (ἐπιδέξασθαι). Eck (2003: 156) defends this reading, on the grounds that the notion of a cosmos continuing its existence into the future without limit is an Aristotelian one unparalleled in Mesopotamia; with the past tense, the statement would be taken as a denial that a great deluge had occurred in the past.

30.2. *Having made observations*. Diodorus now turns to the Chaldeans' reputation for celestial divination. Collections of omens which can be used to interpret observed celestial phenomena are preserved from as early as the Old Babylonian period (first half of the second millennium BCE).[11] The standardized terminology for astronomical phenomena found in these texts implies a pre-existing tradition of basic astronomical observation. By the mid-first millennium BCE, this tradition had developed into a practice of regular observation and the systematic recording of those observations in texts known today as Astronomical Diaries.[12] Diodorus refers to observations of the "stars" made "over many years." Later, at 31.9, Diodorus says that observations began 473,000 years before Alexander the Great's crossing the Hellespont (334 BCE)—see the discussion below.

The reference to the "stars" is probably intended to be taken as a broad term indicating astronomical phenomena generally, and involving the sun, moon, and planets as well as the fixed stars; the Greek word *aster* is generally applicable to fixed stars, planets, the sun and moon, as well as constellations. The Akkadian word *kakkabu* too has the general sense of an astronomical body and can refer to a star, a constellation, a planet, or even a comet. Diodorus says that from these observations the Chaldeans were able to deduce the "motions" (*kineseis*) of the stars, by which he probably means simply astronomical phenomena, and their "powers," which presumably means the astrological influences. This latter notion suggests influence from Greek philosophy in Diodorus's presentation, since in Babylonia celestial phenomena are understood as signs from the gods rather than having direct influence on human affairs.

30.3. *the five stars called "wanderers."* Diodorus continues by saying that the Chaldeans paid particular attention to the five planets, which he says that they named the "interpreters." This name bears no relation to the Akkadian term for the planets as a group, *bibbu*, literally meaning "wild sheep." Diodorus lists the planets by their Greek theophoric name in the following order: Saturn, Mars, Venus, Mercury and Jupiter. This planetary order is not the standard Babylonian order of the planets which is commonly found in cuneiform texts of the

11 Rochberg 2006.

12 Sachs and Hunger 1988, 1989, 1996.

late first millennium BCE (Jupiter, Venus, Mercury, Saturn, Mars), nor does it have an obvious Greek origin.

30.3. *Kronos*. Diodorus picks out Saturn (the "star of Kronos") for special attention, saying that it is most "conspicuous" and "signifying the most and greatest things," and that the Chaldeans called it "of the Sun." It is not clear why Saturn should be the most "conspicuous" of the planets since it is neither the brightest nor the slowest moving. Furthermore, there is no indication within Babylonian astrology that Saturn is more significant than other planets. The relationship between Saturn and the Sun is found in cuneiform texts, however. For example, in MUL.APIN, Saturn is at one place referred to as "Saturn, also called the Scales (or) star of the Sun."[13] The association of planets with other heavenly bodies is a common feature of Babylonian omen texts.[14]

30.3. *they name the other four in the same way as the astronomers among us*. This is a curious statement if meant literally, since of course the Babylonians neither spoke Greek nor would have associated the planets with Greek divinities. Perhaps Diodorus merely means that they identified the planets by divinities who were considered to be equivalent, or at least to have correspondence, to the divinities of the conventional Greek theophoric names "star of Hermes" (Mercury), "star of Aphrodite" (Venus), "star of Ares" (Mars), and "star of Zeus" (Jupiter). Various names for the planets were used in scholarly cuneiform texts. In the late period, the most commonly used names were descriptive, such as MÚL.BABBAR "white star" (Jupiter) and GU_4.UD "jumping" (Mercury), but theophoric names such as Inana/Ištar (Venus) and Ninurta (Mercury), some of which could be used for more than one planet, are also attested, especially in astrological and non-astronomical scholarly texts.[15] Planet names could be written with either the star determinative MÚL or the divine determinative DINGIR. Collectively, the planets were normally known as the "wild sheep," but they could on occasion be referred to as, for example, the "six gods" (referring to the five planets plus the sun) in MUL.APIN II i 7.

30.4. *intention* (ἔννοιαν). This is Dindorf's (1828) emendation of εὔνοιαν ("good will"); the transmitted reading seems inappropriate—though defended by Eck (2003)—since many omen texts indicated malevolent intentions on the part of the gods.

13 MUL.APIN II i 64 (Hunger and Pingree 1989: 86). For other references to Saturn as the Sun, see van der Sluijs and James 2013 and Brown 2000: 57.

14 See, for example, Brown 2000: 53–81 and Reiner 2004.

15 Brown 2000: 54–81; Rochberg 2011.

30.4. *They say that they signify*. Diodorus asserts that the "rising," presumably the first appearance, "setting," presumably last appearance, and color of the planets predict a variety of natural phenomena on Earth including the strength of winds, rain, heat waves, and earthquakes, as well as celestial phenomena including comets and eclipses of the sun and moon, which affect countries, kings and everyday people. Traditional Babylonian celestial divination of the kind epitomized by the omen series *Enūma Anu Enlil* indeed pays attention to the dates, location, and appearance of a planet at its first and last appearance, as well as its apparent color. However, there are also many omens which are concerned with other phenomena of the planets, most notably their position among the constellations. A notable feature of Babylonian celestial divination which is correctly referred to by Diodorus is the prediction of a celestial phenomenon as the apodosis of another celestial omen, with the implicit understanding that this predicted phenomenon can then be interpreted as an omen in its own right. In particular, a number of references to eclipses in omen apodosis are found in *Enūma Anu Enlil*. Weather and other natural phenomena are also commonly predicted in celestial omens as well as in Late Babylonian astrological texts such as TCL VI 19 and 20.[16] It is interesting, however, that Diodorus does not mention the prediction of human affairs directly. References to good and bad harvests, wars, the death of the king, rising and falling values in the market, etc., are very common in both *Enūma Anu Enlil* and late astrological texts. It is also interesting that Diodorus does not mention nativities here, reserving mention of them for the next section.

30.6–7. Following the discussion of general celestial divination, Diodorus turns to the constellations and the zodiac. This topic is resumed, after a digression on personal astrology, in 31.4.

30.6. He begins by saying that "below" (ὑπό, following the transmitted text) the motion of the planets are placed thirty stars. The notion of heavenly bodies being above (i.e., farther away) or below (i.e., closer) each other is not known from Babylonian texts; the particular case here, of the constellations being below the planets, is very strange even in a Greek cosmological context, and most editors therefore accept Letronne's 1839 emendation, ὑπέρ ("above").[17] Another conceivable interpretation would take *hypo* in the sense "subordinate to," but this too would not correspond to any known Babylonian or Greek doctrine.

30.6. *thirty stars*. The reference is puzzling and has led to considerable discussion among modern scholars, both for the number and for the original identity

16 Hunger 1976.

17 Letronne 1839: 584, reprinted 1883: 499.

of these "stars."[18] Most scholars have assumed that the number thirty is an error for thirty-six. This was first suggested by the biblical scholar Wilhelm Gesenius, adducing as a reference to the same entity the later passage 31.4 that speaks of twenty-four "stars" in addition to the twelve zodiacal constellations; Gesenius supposed that Diodorus was speaking of the Egyptian decans, erroneously ascribing them to the Chaldeans.[19] Most subsequent editors have adopted Gesenius's correction. However, starting with Weidner, recent scholars have tended to identify in the passage a reference to the so-called "Three Stars Each" texts (often misleadingly referred to as "Astrolabes" in modern scholarship).[20] In reality, taking 30.6–7 + 31.4 all together, Diodorus is scrambling together three distinct systems: the Egyptian decans, the Babylonian Three Stars Each, and the zodiac which was both Babylonian and, by adoption, Egyptian and Greco-Egyptian.

Section 30.6, considered in isolation, makes sense understood as a description of the Egyptian decans in their original function (traceable back to the First Intermediate Period, late third millennium BCE) as a belt of thirty-six constellations whose successive risings subdivided the night into hours.[21] Although the intervals between first appearances of actual constellations can hardly have been so strictly regular, Egyptian "star-clock" schemes assigned one decan to each ten-day interval in the twelve 30-day months of the Egyptian calendar year. Diodorus's mention of these ten-day intervals is not only a compelling reason for identifying the stars in question as the decans, but also for emending the "thirty" to "thirty-six." The decans were regarded as divine beings having deep associations with the netherworld and with funerary rituals and beliefs.[22] The comment that "they have this motion defined and ratified for an eternal period" is in agreement with the statement in the Babylonian creation epic *Enūma Eliš* (quoted above) that Marduk set up three stars for each month, and this could be seen as a direct reference to the Three Stars Each texts, but the expression is not sufficiently distinctive to rule out the possibility

18 See, for example, Weidner 1915; van der Waerden 1949; Lambert 1987; Oelsner and Horowitz 1997–98.

19 Gesenius 1821: 333–334.

20 Weidner 1915: 63. A notable exception is Oelsner & Horowitz (1997–98), who assume that thirty stars is correct and refers to texts which contain lists of ten stars for each of the three celestial paths of Ea, Anu and Enlil. However, internal evidence from Diodorus' text discussed in what follows argues in favor of correcting the text to thirty-six.

21 Kákosy 1982: 163. Further insights into the decans in later Egyptian and Greco-Egyptian astrology can be expected from J.F. Quack's forthcoming monograph on the topic.

22 Kákosy 1982: 182–184.

that this too is a reflection of Egyptian beliefs about the decans and their cyclic appearances.

In 30.7, twelve superior divinities associated with the months and with the signs of the zodiac are specified as lords of the foregoing thirty-<six> stars. This too is entirely intelligible in terms of Egyptian astrology, now of the late period from the third century BCE onward, closely following the importation into Egypt of the Babylonian zodiac.[23] Without being deprived of their divine status or their nominal role as "hour-watchers," the decans were mapped on the zodiac, three decans to a sign, so that each decan became equated with one of the three 10° segments of a zodiacal sign.

Section 31.4 marks itself as a continuation of 30.7 through the shared reference to the zodiac. However, considered on its own, it appears quite clearly now to be describing the schemes of the Three Stars Each texts. These texts assign three stars, one from each of the "paths" of Ea (northern sky), Anu (middle sky), and Enlil (southern sky), to each month of the schematic 360-day year. This makes a total of thirty-six, not constituting a continuous belt of successively rising stars like the decans, but rather twelve sets of three stars loosely aligned in the north-south direction. Diodorus's account is confused, however, in two crucial respects. Firstly, the stars of Anu were never equated with the signs of the zodiac; all that they have in common is being twelve in number. Secondly, the statements that they are "judges" and that those that are visible (i.e. above the horizon) belong to the living while those that are invisible (below the horizon) belong to the dead is apparently a resumption of the functions of the decans. The expression is sufficiently distinct from that of 30.6 so that it is not certain whether Diodorus means the thirty-<six> stars of 30.6 to be the same as the twelve-plus-twenty-four stars of 31.4.

30.6 *eternal period* (περιόδῳ … αἰωνίῳ). Another possible translation is "a period of an aeon," that is, a vast but not infinite interval of cyclic regeneration.

30.7. *there are lords of these gods, twelve in number*. The notion of zodiacal constellations through which the Sun, Moon and planets pass is attested already in the early Babylonian astronomical compendium MUL.APIN (I iv 31–II i 8) and by the end of the fifth century BCE it had developed into the concept of the division of the path of the Moon (and other heavenly bodies) into twelve signs of the zodiac of equal length.[24]

31.1. *each of the planets has its own course*. In his discussion of the Sun, Moon and planets, Diodorus notes that each of the planets is "subject to variations

23 Greenbaum & Ross 2010: 156–158.

24 Steele 2007.

and complexities in its speeds and its division of the time intervals." Subdivisions of the synodic arcs of the planets are already presented in MUL.APIN (II i 44–67), but it is only in the mathematical astronomy of the Achaemenid and Seleucid periods that we find a discussion the variation in length and duration of the synodic phases and the speeds of the planets.

31.1. *the nativities of people*. Diodorus turns now to the use of the zodiac in the prediction of the lives of individuals from their birth dates. Horoscopic astrology appeared in Babylonia towards the end of the fifth century BCE, more or less contemporaneously with the Babylonian development of the concept of the zodiac. The practice of horoscopic astrology is attested both by preserved horoscopes which contain astronomical data (principally the positions of the sun, moon and planets at the moment of birth),[25] and by texts which contain omens for the life or an individual or astrological associations which could be used for interpreting horoscopes.[26] Diodorus does not go into detail but refers to the stories he gives elsewhere concerning Alexander (17.112) and Antigonus and Seleucus Nicator (19.55)—though the prophecies of the Chaldeans in those stories are actually more in keeping with the practice of astral omen interpretation referring to kings and kingdoms, best known to us from the late Neo-Assyrian period, than with the later personal astrology.

31.5. *the moon travels.* Diodorus next outlines a cosmological system in which the Moon is closest to the Earth "on account of its weight," that it shines by light "not its own" (i.e., reflected sunlight), and that it causes solar eclipses by casting a shadow on the Earth's surface. There is no evidence that this is a Babylonian cosmological system. Similarly, a couple of lines later, Diodorus says that the Earth is bowl-shaped, which is again not a Babylonian cosmological concept.

31.8–9. *the Chaldeans have the greatest competence in astronomy/astrology of all people.* Diodorus's suming up accounts for the Chaldeans supreme competence in astral science on the grounds that they have been observing the stars for 473,000 years. This number may have its origin in one of the various tradition of king lists that are known from Babylonia. For example, one version of the Sumerian king list (Ash. WB 62) allots a period of 456,000 years to the six kings who ruled before the deluge, although other versions give periods roughly half this long.[27] Berossos assigns a period of 432,000 years to the same antediluvian kings. As for the antiquity of Babylonian astronomical observations, though classical sources transmit a variety of (to us) absurdly large time intervals, it is curious that several cluster near Diodorus's figure: 490,000 years

25 Rochberg 1998.

26 For example, TCL VI 14 and LBAT Nos. 1588–1593.

27 See most recently Friberg 2007: 240.

according to Berossos and Critodemus (as reported by Pliny the Elder, *Natural History* 7.193), 480,000 according to Julius Africanus (as reported by Syncellus, ed. Dindorf p. 31), and 470,000 according to Posidonius (as reported by Cicero, *De divinatione* 1.36 and 2.97).

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